Claim Amendments

Please make the following amendments to the claims:

1. (CURRENTLY AMENDED) An optical system, comprising:

a first micromirror array, comprising micromirrors and non-mirrored regions, wherein the micromirrors and the non-mirrored regions of the first micromirror array are alternately disposed in a checkerboard-like arrangement;

a second micromirror array, comprising micromirrors and non-mirrored regions, wherein the micromirrors and the non-mirrored regions of the second micromirror array are alternately disposed in a checkerboard-like arrangement and the second micromirror array is complementary to the first micromirror array; and

a ray-forming device, wherein the ray-forming device separates a light image into image components, wherein a first image component is received by the first micromirror array, a second image component is received by the second micromirror array, a third image component sent from the first micromirror array and a fourth image component sent from the second micromirror array are combined at the ray-forming device to produce a composite image with a perfect or nearly perfect fill factor.

2. (ORIGINAL) The optical system of claim 1, wherein the ray-forming device is a beam splitter.

3. (CANCELLED) The optical system of claim 1, wherein the micromirrors and the non-mirrored regions of the first micromirror array are alternately disposed in a checkerboard-like arrangement.

4. (CANCELLED) The optical system of claim 3, wherein the micromirrors and the non-mirrored regions of the second micromirror array are alternately disposed in a checkerboard-like arrangement and the second micromirror array is complementary to the first micromirror array.

5. (CURRENTLY AMENDED) The optical system of claim 1, wherein each micromirror further comprising a control and support region comprising at least a mirror support post, support circuitry, and pads, wherein the mirror support post is disposed beneath the micromirror, [[but]] and the support circuitry and pads are disposed not beneath the micromorror, but beneath a non-mirrored region adjacent to the micromirror.

6. (ORIGINAL) The optical system of claim 1, wherein the micromirrors are square in shape.

7. (ORIGINAL) The optical system of claim 1, wherein the micromirrors are circular in shape.

8. (ORIGINAL) The optical system of claim 1, wherein the ray-forming device further comprises transparent surfaces and reflective surfaces, in which the transparent surfaces are alternately disposed adjacent to the reflective surfaces in a checkerboard-like arrangement.

9. (ORIGINAL) The optical system of claim 1, wherein the composite image is displayed.

10. (ORIGINAL) The optical system of claim 1, wherein the composite image is projected.

11. (ORIGINAL) The optical system of claim 1, further comprising a birefringent crystal, wherein the first image component and the second image component are produced by the birefringent crystal.

12. (ORIGINAL) The optical system of claim 1, further comprising a system of mirrors, wherein the first image component and the second image component are produced by the system of mirrors.

13. (CANCELLED) The optical system of claim 1, further comprising:

a third micromirror array, comprising micromirrors and non-mirrored regions;

a fourth micromirror array, comprising micromirrors and non-mirrored regions.

14. (ORIGINAL) An optical system, comprising:

a first microshutter array, comprising transparent and opaque regions;

a second microshutter array, comprising transparent and opaque regions; and

a ray-forming device, wherein the ray-forming device separates a light image into image components, wherein a first image component is received by the first microshutter array, a second image component is received by the second microshutter array, a third image component sent from the first microshutter array and a fourth image component sent from the second microshutter array are combined at the ray-forming device to produce a composite image with a fill factor of one hundred or nearly one hundred percent.

15. (ORIGINAL) The optical system of claim 14, wherein the ray-forming device is a beam splitter.

16. (ORIGINAL) The optical system of claim 14, wherein the transparent and the opaque regions of the first microshutter array are alternately disposed in a checkerboard-like arrangement.

17. (ORIGINAL) The optical system of claim 16, wherein the transparent and the opaque regions of the second microshutter array are alternately disposed in a checkerboard-like arrangement and the second microshutter array is complementary to the first microshutter array.

18. (CURRENTLY AMENDED) A method, comprising:

receiving a light image into a ray-forming device;

separating the light image into first and second image components by the ray-forming device;

receiving the first image component by a first micromirror array, the first micromirror array comprising alternately disposed micromirrors and non-micromirrors, wherein the first image component is reflected off [[a plurality of]] the micromirrors [[in the first micromirror array]] to produce a third image component;

receiving the second image component by a second micromirror array, the second micromirror array comprising alternately disposed second micromirrors and second non-micromirrors, the arrangement of second micromirrors and second non-micromirrors being complementary to the arrangement of micromirrors and non-micromirrors, wherein the second image component is reflected off [[a plurality of]] the second micromirrors [[in the second micromirror array]] to produce a fourth image component; and

combining the third and fourth image components together as a composite image, wherein the composite image has a substantially perfect fill factor.

19. (ORIGINAL) The method of claim 18, further comprising:
projecting the composite image.

20. (ORIGINAL) The method of claim 18, further comprising:
displaying the composite image.

21. (CURRENTLY AMENDED) A micromirror array, comprising:
a non-mirrored surface, one of a plurality of non-mirrored surfaces;
a micromirror, wherein the micromirror is part of a plurality of micromirrors which are alternately disposed with the plurality of non-mirrored surfaces in a checkerboard-like pattern, the micromirror being associated with the non-mirrored surface; and
a control and support region, one of a plurality of control and support regions, one for each of the plurality of micromirrors, wherein each control and support region comprising a micromirror support post, support circuitry, and pads;
wherein the micromirror support post is disposed beneath the micromirror while the support circuitry and the pads are not disposed beneath the micromirror, but are instead disposed beneath the associated non-mirrored surface.

22. (ORIGINAL) The micromirror array of claim 21, wherein the micromirror is square in shape.

23. (ORIGINAL) The micromirror array of claim 21, wherein the micromirror is circular in shape.